DIVISION 01 - Section 01 00 00 GENERAL REQUIREMENTS

- 1. The Contractor shall verify all dimensions and conditions prior to starting construction. The Architect shall be notified of any discrepancies or inconsistencies.
- Do not scale the Drawings for working dimensions.
 Notes and details on Drawings shall take precedence over General Notes and Typical Details.
 Typical details shall apply to the project Drawings except when specific details are shown
- which shall take precedence.
 4. All work shall conform to the minimum standards of the following code:
- The 2006 edition of the International Building Code, and any other regulating agencies which have authority over any portion of the work, and those codes and standards listed in these notes and Specifications.

a. Electrical conduit runs, boxes, and outlets in walls, size and location of equipment bases.

- 5. See Architectural Drawings for the following:
- a. Size and location of window and door openings.b. Size and location of concrete curbs, floor drains, and depressed areas.
- c. Size and location of floor and roof openings except as shown.d. Size and location of interior and exterior non—bearing partitions.6. See Mechanical, Plumbing, and Electrical Drawings for the following:
- b. Pipe runs, sleeves, hangers, trenches, and openings.
 c. Concrete inserts for fixtures.
- 7. Contractor shall investigate site during clearing and earth work operations for filled excavations or buried structures such as cesspools, cisterns, foundations, etc. If any such structures are found, notify Structural Engineer immediately.
- 8. The contract Structural Drawings and Specifications represent the finished structure. They do not indicate the method of construction. The Contractor shall provide all measures necessary to protect the structure during construction. Such measures shall include, but not be limited
- to, bracing, shoring for loads due to construction equipment, etc. Observation visits to the site by the Structural Engineer shall not include inspection of the above items.

 9. Openings, pockets, etc. larger than 6 inches shall not be placed in slabs, decks, beams, joists, columns, walls, etc., Unless specifically detailed on the Structural Drawings. Notify the Structural Engineer when drawings by others show openings, pockets, etc., not shown on the
- Structural Drawings, but which are located in structural members.

 10. Construction materials shall be spread out if placed on framed floors or roof. Load shall not exceed the design live load per square foot. Provide adequate shoring and/or bracing where
- structure has not attained design strength.
 11. Shop Drawings submitted to the Structural Engineer for review shall consist of the number of sets to be returned plus one. Shop drawing submittals shall be bond copies.
- 12. Adhesive anchors shall be Simpson SET—XP Epoxy per ICBO ESR—2508 with ASTM A—36 threaded rod or approved equal u.n.o.. Expansion anchors shall be Simpson Strong Bolts per ICBO—ESR—1771, u.n.o.. Adhesive or expansion anchors shall not be installed until masonry grout or concrete has cured to design strength.

 13. Design loads:
- Wind Design Data:
- wind Design Data:
 1. Basic wind speed 100 miles per hour (3 second gust)
- Iw = 1.0, Occupancy Category II
 Wind exposure C
 Internal pressure coefficient = N/A, simplified provisions
- Earthquake Design Data:
- 1. le = 1.5 Occupancy Category IV 2. Ss = 1.50g and S1 = 0.60g
- 3. Site class: = D 4. SDs = 1.00g , SD1 = 0.60g
- 5. Seismic design category = D6. Analysis procedure used = Equivalent lateral force

DIVISION 01 - Section 01 11 00 SUMMARY OF WORK

- 1. It shall be the contractors direct responsibility to comply with typical details and general notes as delineated or defined on the typical detail drawings of these contract documents regardless of specific flagging or reference to applicable note or detail.
- It shall be the contractor's responsibility to coordinate with all trades regarding utilities passing through and under footings. Structural requirements for these conditions are delineated in typical details.
 Top of footing elevations noted are minimum. see note 2 for additional requirements.
 Contractor to verify and coordinate all locations and sizes of openings in slabs, slab
- Contractor shall then use appropriate detail(s) or appropriate wall section for each applicable condition.
 5. Drawings are diagrammatic in nature and are not intended to indicate every opening or penetration in roof or other structure. Contractor shall coordinate and verify location and size of all such openings and penetrations with related sub—contractors prior to roof or other

depressions, and curbs for all related construction prior to floor layout or construction.

- framing layout or construction. Contractor shall then use appropriate typical or referenced detail(s) for each opening or penetration.

 6. Contractor to verify with appropriate sub—contractors the exact location, weight, and intended method of attachment of all items to be suspended from or in any way attached to any
- roof framing or other structural member unless such item(s) are clearly addressed by the structural construction documents. This information shall be transmitted in writing to the appropriate framing manufacturer via the structural engineer prior to final design or
- fabrication of structural framing members.
 7. Contractor to verify dimensions with architect prior to construction.
- 8. Contractor to verify all existing conditions and dimensions and notify the architect in writing of any discrepancies.

 9. The contractor and all subcontractors be intends to use (including agents and suppliers) are
- The contractor and all subcontractors he intends to use (including agents and suppliers) are aware of and acknowledge that close coordination among architectural, mechanical, electrical and structural drawings is required for the following:
- a. Determination of all column locations and sizes.
 b. Determination of top of floor, top of steel, wall plate and top of beam elevations.
 c. Verification of all dimensions.
 d. Verify all tops of footings.
- 10. The contractor and all subcontractors he intends to use (including agents and suppliers) shall make consideration for and include Monies for the above in preparation of their bids. This requirement shall supersede any contained in the AISC "Manual of Steel Construction".

DIVISION 01 - Section 01 45 00 SPECIAL INSPECTIONS AND DEFERRED SUBMITTALS

- Special inspection, per the International Building Code chapter 17, Table 1704.3 for steel and 1704.4 for concrete shall be required for the following types of work. See project Specifications for specified requirements.
- a. All field welding (except metal studs, furring channels, etc.). Shop welding for procedures and multiple pass welds.
- b. All fillet welds shall be visually inspected in accordance with AWS and the current International Building Code.
- International Building Code. c. All expansion bolts and adhesive anchors.

16

one eighth inch

0 4 8

DIVISION 03 - Section 03 00 00 CONCRETE

Drawings or Specifications.

- 1. All phases of work pertaining to the concrete construction shall conform to the 'Building Code Requirements for Reinforced Concrete' (ACI 318) and the 'Specifications for Structural Concrete for Buildings' (ACI 301) latest approved editions, with modifications as noted in the
- 2. Reinforced concrete design is by the 'Ultimate Strength Design method'.
 3. Concrete mixes shall be designed by a qualified testing laboratory and approved by the
- Structural Engineer.

 a. Proposed mix designs shall be no more than 1 (one) year old, and have affixed on each submitted copy the original seal of the Reviewing Engineer. The reviewing Engineer shall be registered in the state of Nevada.
- b. Each mix design shall indicate the project name and address. Contractor shall designate location of use for each proposed mix design.
 c. Each mix design shall include the slump, before and after adding plasticizer, air
- entrainment, type of aggregate, type of cement, and admixtures to be used.

 d. All exposed at grade concrete shall have air entrainment.
- e. No calcium chloride shall be used. f. Water cement ratio for footings shall not exceed 0.55.
- g. Slab on grade shall have a water cement ratio of 0.54 and shall be moisture cured per ACI 318 Sec. 5.11 requirements.
 h. Concrete may have a maximum of 15% fly ash substition for cement verify w/
- architect.

 i. An approved curing compound compatible with the stain finish can be used.
- 4. Schedule of Structural concrete 28—day strengths and types:
- LOCATION IN STRUCTURE STRENGTH PSI TYPE
 Concrete Pads: 4000 Normal Wt. 145 ± 5 pcf
- 5. Portland cement shall conform to ASTM C-150, type II. Use minimum 6 sacks cement/c-y and maximum 3" slump with water (slump may be increased with admixtures that do not promote shrinkage). ** Provide 6% ± 1% air entrainment in concrete exposed to weather.
 6. Maximum aggregate size shall conform with the following: 1/5 distance between forms, 3/4 distance between reinforcing bars, 1/3 thickness of slab.
 - a. Aggregate for hard rock concrete shall conform to all requirements and tests of ASTM C-33 and project Specifications. Exceptions may be used only with permission of the Structural Engineer.
- 7. Forms for elevated concrete beams shall be laid out and constructed to provide the specified
- cambers shown on the Drawings.

 8. Dry pack under base plates, sill plates, etc., see Specifications.

 9. Concrete mixing operations, etc., shall conform to ASTM C-94.
- 10. Placement of concrete shall conform to ACI-318 requirements.

 11. If columns and walls are placed with floor, two hours must elapse between end of column
- 11. If columns and walls are placed with floor, two hours must elapse between end of column or wall pour and beginning of floor pour.12. Clear coverage of concrete over outer reinforcing bars shall be as follows:
 - a. Concrete Pads: center in slab.
- 13. All reinforcing bars, anchor bolts and other concrete inserts shall be well secured in position prior to placing concrete.14. Provide sleeves for plumbing and electrical openings in concrete before placing. Do not cut any reinforcing which may conflict. Coring in concrete is not permitted except as shown.
- Notify the Structural Engineer in advance of conditions not shown on the Drawings.

 15. Conduit shall not be placed in slabs or walls unless specifically detailed otherwise.
- 16. Projecting corners of beams, walls, columns, etc., shall be formed with a 1/2 in. chamfer, unless otherwise noted on Architectural Drawings.17. Curing compounds used on concrete that is to receive a resilient tile finish shall be approved by the tile manufacturer before use.

DIVISION 03 - Section 03 21 00 REINFORCING STEEL

- 1. All reinforcing steel shall be detailed and placed in conformance with the 'Building Code Requirements for Reinforced Concrete' (ACI 318 latest approved edition), and the 'Manual of Standard Practice for Reinforced Concrete Construction' (latest edition) by the C.R.S.I. and the
- W.C.R.S.I., as modified by the project Drawings and Specifications.
 Deformed reinforcing bars shall be ASTM A-615 Grade 60 except ties, stirrups, slab dowels
- and reinforcing bars in non structural concrete such as slabs on grade, which may be Grade 40, unless noted otherwise. Use A706 reinforcing bars that are required for welding.

 3. Welding of reinforcing shall be with low hydrogen electrodes in conformance with
- 'Recommended Practices for Welding Reinforcing Steel, etc.', American Welding Society, AWS—D1.4. See Specifications.

 4. All reinforcing bar bends shall be made cold.
- 5. Welded wire fabric shall conform to ASTM A—185. 6. Minimum lap of welded wire fabric shall be 6 inches or one full mesh and one half, which
- ever is greater.

 7. Reinforcing splices shall be made only where indicated on the drawings.

 8. Dowels between footings and walls or columns shall be the same grade, size and spacing
- 8. Dowels between footings and walls or columns shall be the same grade, size and spacing or number as the vertical reinforcing, respectively.9. All bars shall be marked so their identification can be made when the final in-place
- inspection is made.

 10. Splice reinforcing per detail 5/S0.2
- 11. All reinforcing bars to be tied in place before pouring concrete or grout.

 12. Do not splice reinforcing steel in middle third of walls.

DIVISION 05 - Section 05 12 00 STRUCTURAL STEEL FRAMING

- 1. Structural steel shall be detailed, fabricated and erected in accordance with the AISC Specifications for the design, fabrication and erection of Structural steel for buildings (latest edition and supplements).
- All Structural steel shall conform to ASTM A-992 with fy=50 ksi, unless noted otherwise. Misc. steel such as Plates, and Angles may be ASTM-A36.
 Pipe columns shall conform to ASTM designation A-53 Grade 'B'. All steel tubes shall conform
- to ASTM A-500 Grade 'B' cold formed tubes with fy = 46 ksi. unless noted otherwise on plans.
 4. All bolts, except anchor bolts, shall conform to ASTM A-325, connection type N, Anchor bolts shall conform to ASTM A-307 A36 or F1554. grade 36 unless noted otherwise. All bolts shall
- shall conform to ASTM A-307 A36 or F1554. grade 36 unless noted otherwise. All bolts shall have a minimum of 3 threads projecting beyond the nut.

 5. Structural steel fabricator shall furnish shop drawings of all Structural steel, respectively, for
- Architect's and Engineer's review before fabrication.

 6. Bolt holes in steel shall be 1/16 inch larger than nominal size of bolt used, except anchor bolt holes for column base plates which may be 3/16 inch larger.
- 7. All Structural steel surfaces shall be shop painted. All steel exposed to weather shall have two coats of paint. All exposed Structural steel shall satisfy AISC requirements for Architecturally exposed Structural steel (AESS) unless waived in writing by Architect.
 8. All welds shall be in conformity with the Structural welding code (AWS D1.1) of the American
- welding society. See I.B.C.

 9. Weld lengths called for on plans are the net effective length required. Use E70XX electrodes.

 10. Welding tests and inspections, see I.B.C.

STANDARD HOOKS

SHEET INDEX

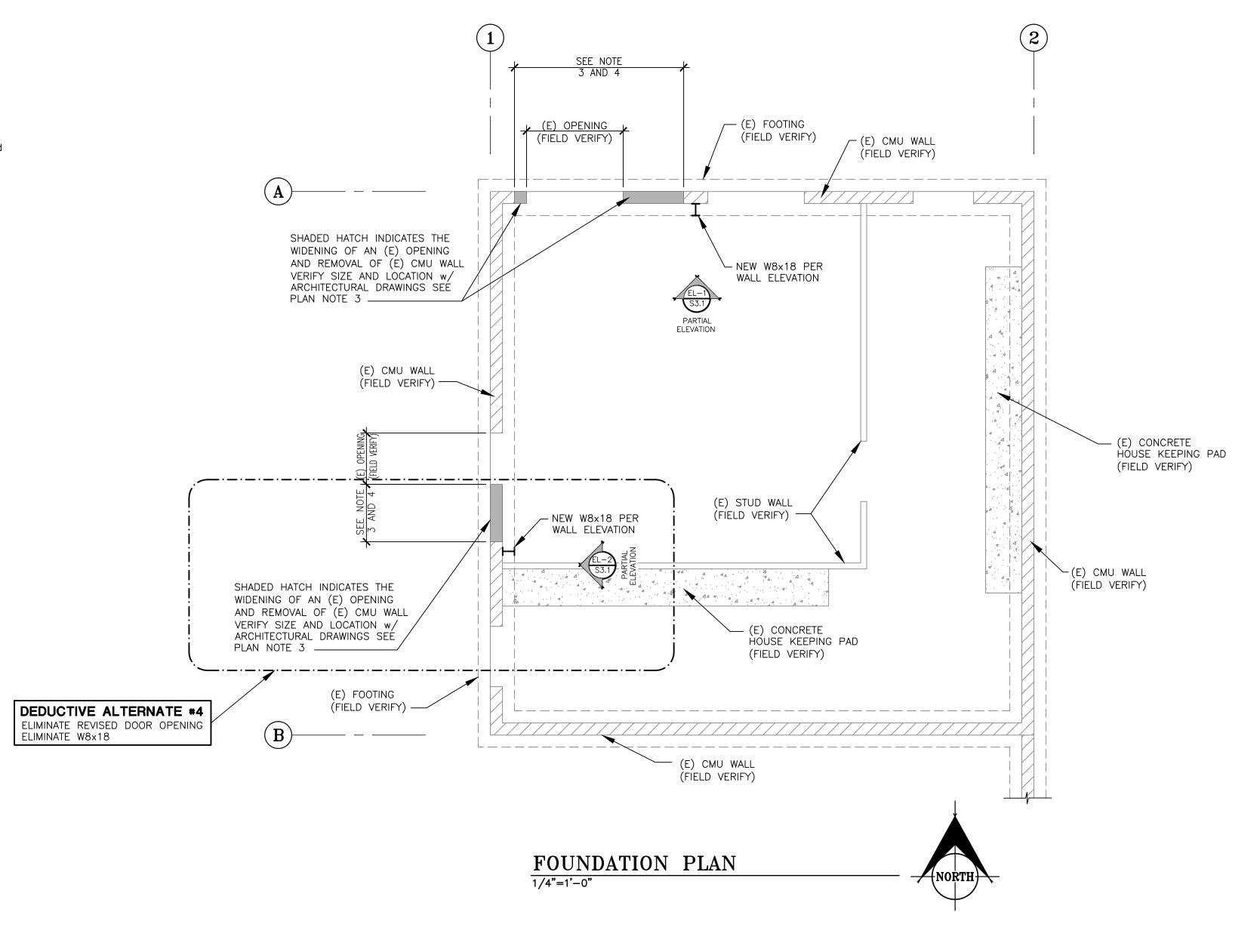
BB5-SE-1.1 GENERAL NOTES/PARTIAL FOUNDATION PLAN/DETAILS

BB5-SE-2.1 PARTIAL WALL ELEVATIONS

PLAN NOTES:

- 1. CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS AND COORDINATE AND VERIFY ALL DIMENSIONS WITH THE ARCHITECTURAL DRAWINGS. CONTACT ENGINEER WITH DISCREPANCIES BEFORE CONSTRUCTION OCCURS.
- 2. SEE GENERAL NOTES AND STRUCTURAL DETAILS FOR BALANCE OF INFORMATION.
- 3. SAWCUT AND REMOVE (E) CMU AS REQUIRED FOR NEW OPENING INSTALL STEEL TIE PLATES, HSS AND ANGLE STRONGBACKS BEFORE SAWCUTTING NEW OPENING. DO NOT OVER CUT VERIFY SIZE AND LOCATION w/ ARCHITECTURAL DRAWINGS
- 4. PROVIDE 2"Ø HOLE AT EACH CORNER PRIOR TO SAWCUTTING TO

PREVENT OVER CUT CORNERS.

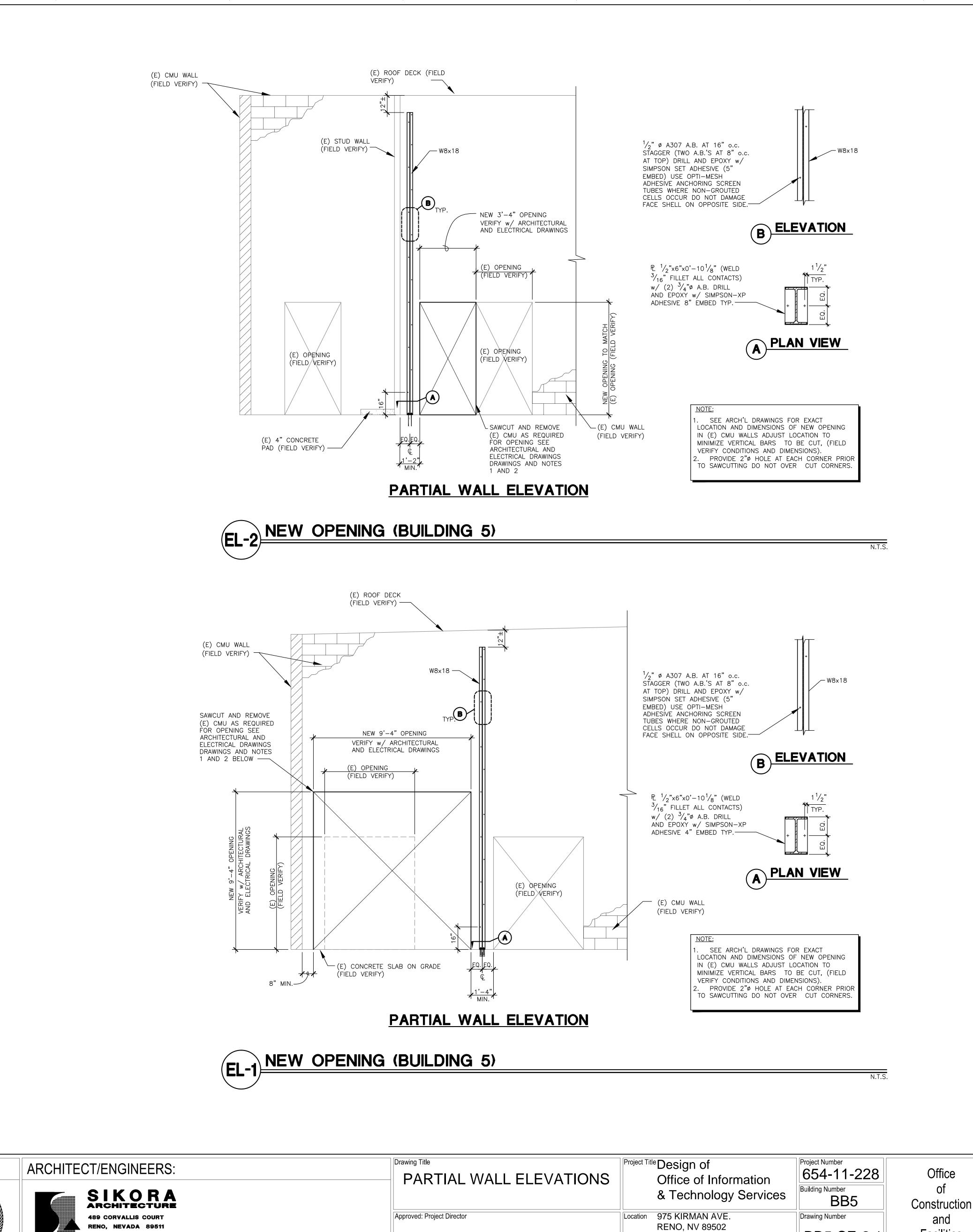


D= 6 BAR Ø FOR #3 TO # 8 BAR Ø FOR #9 TO # 11 BAR Ø FOR #9 TO #1 BAR Ø FOR

1 REBAR CONFIG. AND LAPS

4

Project Title Design of Drawing Title Project Number **CONSULTANTS:** ARCHITECT/ENGINEERS: 654-11-228 Office GENERAL NOTES/PARTIAL Office of Information FORBESENGINEERING **Building Number** SIKORA ARCHITECTURE & Technology Services FOUNDATION PLAN/DETAILS BB5 59 Damonte Ranch Pkwy, Suite B181 Construction Reno, Nevada 89521 Location 975 KIRMAN AVE. Approved: Project Director Drawing Number and Ph. (775) 857-3744 RENO, NV 89502 Fax (775) 857-3742 **Facilities** BB5-SE-1.1 775 - 852 - 5800 Checked © COPYRIGHT 2012 ALL RIGHTS RESERVED. ALL DOCUMENTS HEREIN ARE PROTECTED UNDER COPYRIGHT LAWS OF THE UNITED STATES. ANY UNAUTHORIZED REPRODUCTION OR DUPLICATION IS PROHIBITED. ericesikora-architecture.com Management: TES Dwg. 1 of 2 12/04/12



Office

and

Management:

BB5-SE-2.1

Dwg. 2 of 2

Checked

TES

one eighth inch = one foot

0 4 8 16

CONSULTANTS:

FORBES ENGINEERING
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DIVISION 01 - Section 01 00 00 GENERAL REQUIREMENTS

- 1. The Contractor shall verify all dimensions and conditions prior to starting construction. The Architect shall be notified of any discrepancies or inconsistencies.
- 2. Do not scale the Drawings for working dimensions. 3. Notes and details on Drawings shall take precedence over General Notes and Typical Details. Typical details shall apply to the project Drawings except when specific details are shown
- which shall take precedence. 4. All work shall conform to the minimum standards of the following code:
- The 2006 edition of the International Building Code, and any other regulating agencies which have authority over any portion of the work, and those codes and standards listed in these notes and Specifications.
- 5. See Architectural Drawings for the following:
- a. Size and location of window and door openings. b. Size and location of concrete curbs, floor drains, and depressed areas.
- c. Size and location of floor and roof openings except as shown. d. Size and location of interior and exterior non-bearing partitions.
- 6. See Mechanical, Plumbing, and Electrical Drawings for the following: a. Electrical conduit runs, boxes, and outlets in walls, size and location of equipment bases. b. Pipe runs, sleeves, hangers, trenches, and openings.
- c. Concrete inserts for fixtures. 7. Contractor shall investigate site during clearing and earth work operations for filled
- excavations or buried structures such as cesspools, cisterns, foundations, etc. If any such structures are found, notify Structural Engineer immediately. 8. The contract Structural Drawings and Specifications represent the finished structure. They do not indicate the method of construction. The Contractor shall provide all measures necessary to protect the structure during construction. Such measures shall include, but not be limited to, bracing, shoring for loads due to construction equipment, etc. Observation visits to the
- site by the Structural Engineer shall not include inspection of the above items. 9. Openings, pockets, etc. larger than 6 inches shall not be placed in slabs, decks, beams, joists, columns, walls, etc., Unless specifically detailed on the Structural Drawings. Notify the
- Structural Engineer when drawings by others show openings, pockets, etc., not shown on the Structural Drawings, but which are located in structural members. 10. Construction materials shall be spread out if placed on framed floors or roof. Load shall not exceed the design live load per square foot. Provide adequate shoring and/or bracing where
- structure has not attained design strength. 11. Shop Drawings submitted to the Structural Engineer for review shall consist of the number of sets to be returned plus one. Shop drawing submittals shall be bond copies. 12. Adhesive anchors shall be Simpson SET-XP Epoxy per ICBO ESR-2508 with ASTM A-36 threaded rod or approved equal u.n.o.. Expansion anchors shall be Simpson Strong Bolts per
- ICBO-ESR-1771, u.n.o.. Adhesive or expansion anchors shall not be installed until masonry grout or concrete has cured to design strength. 13. Ďesign loads:
- Floor Live Load: 100 psf. Roof Live Load: 24 psf. (snow)
- Wind Design Data: 1. Basic wind speed 100 miles per hour 2. lw = 1.15, Occupancy Category II
- 3. Wind exposure C Earthquake Design Data:
- 1. le = 1.5 Occupancy Category IV 2. Ss = 1.50g and S1 = 0.60g
- 3. Site class: = D 4. SDs = 1.00q , SD1 = 0.60q
- 5. Seismic design category = D 6. Analysis procedure used = Equivalent lateral force

<u>DIVISION 01 - Section 01 11 00 SUMMARY OF WORK</u>

- 1. It shall be the contractors direct responsibility to comply with typical details and general notes as delineated or defined on the typical detail drawings of these contract documents regardless of specific flagging or reference to applicable note or detail. 2. It shall be the contractor's responsibility to coordinate with all trades regarding utilities
- passing through and under footings. Structural requirements for these conditions are delineated in typical details. 3. Top of footing elevations noted are minimum. see note 2 for additional requirements. 4. Contractor to verify and coordinate all locations and sizes of openings in slabs, slab depressions, and curbs for all related construction prior to floor layout or construction.
- Contractor shall then use appropriate detail(s) or appropriate wall section for each applicable 5. Drawings are diagrammatic in nature and are not intended to indicate every opening or penetration in roof or other structure. Contractor shall coordinate and verify location and size of all such openings and penetrations with related sub-contractors prior to roof or other framing layout or construction. Contractor shall then use appropriate typical or referenced
- detail(s) for each opening or penetration. 6. Contractor to verify with appropriate sub-contractors the exact location, weight, and intended method of attachment of all items to be suspended from or in any way attached to any roof framing or other structural member unless such item(s) are clearly addressed by the structural construction documents. This information shall be transmitted in writing to the
- appropriate framing manufacturer via the structural engineer prior to final design or fabrication of structural framing members. 7. Contractor to verify dimensions with architect prior to construction.
- 8. Contractor to verify all existing conditions and dimensions and notify the architect in writing of any discrepancies. 9. The contractor and all subcontractors he intends to use (including agents and suppliers) are
- aware of and acknowledge that close coordination among architectural, mechanical, electrical and structural drawings is required for the following: a. Determination of all column locations and sizes.
- b. Determination of top of floor, top of steel, wall plate and top of beam elevations. c. Verification of all dimensions. d. Verify all tops of footings.
- 10. The contractor and all subcontractors he intends to use (including agents and suppliers) shall make consideration for and include Monies for the above in preparation of their bids. This requirement shall supersede any contained in the AISC "Manual of Steel Construction".

<u>DIVISION 01 - Section 01 45 00 SPECIAL INSPECTIONS AND DEFERRED SUBMITTALS</u>

- 1. Special inspection, per the International Building Code chapter 17, Table 1704.3 for steel and 1704.4 for concrete shall be required for the following types of work. See project Specifications for specified requirements.
- a. All concrete work for strengths greater than 2500 psi, except for slabs on grade, footings and non structural concrete.
- b. All reinforcing steel for concrete strengths greater than 2500 psi.
- c. All field welding (except metal studs, furring channels, etc.). Shop welding for procedures and multiple pass welds.
- d. All full penetration welds shall be specially inspected in accordance with AWS and the
- current International Building Code. e. All fillet welds shall be visually inspected in accordance with AWS and the current International Building Code. f. Bolts installed in conc. or masonry
- g. All ASTM A-325 High Strength Bolts. h. All expansion bolts and adhesive anchors.
- i. All grouted dowels.

DIVISION 03 - Section 03 00 00 CONCRETE

- 1. All phases of work pertaining to the concrete construction shall conform to the 'Building Code Requirements for Reinforced Concrete' (ACI 318) and the 'Specifications for Structural Concrete for Buildings' (ACI 301) latest approved editions, with modifications as noted in the Drawings or Specifications.
- . Reinforced concrete design is by the 'Ultimate Strength Design method'. 6. Concrete mixes shall be designed by a qualified testing laboratory and approved by the
- Structural Engineer. a. Proposed mix designs shall be no more than 1 (one) year old, and have affixed on each submitted copy the original seal of the Reviewing Engineer. The reviewing Engineer
- shall be registered in the state of Nevada. b. Each mix design shall indicate the project name and address. Contractor shall designate location of use for each proposed mix design.
- c. Each mix design shall include the slump, before and after adding plasticizer, air entrainment, type of aggregate, type of cement, and admixtures to be used.
- d. All exposed at grade concrete shall have air entrainment. e. No calcium chloride shall be used.
- a. Slab on grade shall have a water cement ratio of 0.54 and shall be moisture cured per ACI 318 Sec. 5.11 requirements. h. Concrete may have a maximum of 15% fly ash substition for cement verify w/

i. An approved curing compound compatible with the stain finish can be used.

4. Schedule of Structural concrete 28-day strengths and types:

f. Water cement ratio for footings shall not exceed 0.55.

LOCATION IN STRUCTURE STRENGTH PSI 3000 Normal Wt. 145 \pm 5 pcf Footings: Slabs on grade: 3000 Normal Wt. 145 \pm 5 pcf 3500 Concrete on Metal Deck: Normal Wt. 145 ± 5 pcf

- 5. Portland cement shall conform to ASTM C-150, type II. Use minimum 6 sacks cement/c-y and maximum 3" slump with water (slump may be increased with admixtures that do not promote shrinkage). ** Provide 6% ± 1% air entrainment in concrete exposed to weather.
- 6. Maximum agaregate size shall conform with the following: 1/5 distance between forms, 3/4 distance between reinforcing bars, 1/3 thickness of slab. a. Aggregate for hard rock concrete shall conform to all requirements and tests of ASTM C-33 and project Specifications. Exceptions may be used only with permission of the Structural Engineer.
- 7. Forms for elevated concrete beams shall be laid out and constructed to provide the specified cambers shown on the Drawings.
- 8. Dry pack under base plates, sill plates, etc., see Specifications. 9. Concrete mixing operations, etc., shall conform to ASTM C-94.
- 10. Placement of concrete shall conform to ACI-318 requirements. 11. If columns and walls are placed with floor, two hours must elapse between end of column or
- wall pour and beginning of floor pour. 12. Clear coverage of concrete over outer reinforcing bars shall be as follows:
 - a. Concrete poured directly against earth, 3 in. clear to reinforcing. b. Structural slabs: 1 in. clear (top to bottom).
- c. Formed concrete with earth backfill: 2 in. clear. d. Slabs on Grade: center in slab.
- e. Panels: 3/4 in. clear.
- 13. All reinforcing bars, anchor bolts and other concrete inserts shall be well secured in position prior to placing concrete. 14. Provide sleeves for plumbing and electrical openings in concrete before placing. Do not cut any reinforcing which may conflict. Coring in concrete is not permitted except as shown.
- Notify the Structural Engineer in advance of conditions not shown on the Drawings. 15. Conduit shall not be placed in slabs or walls unless specifically detailed otherwise. 16. Projecting corners of beams, walls, columns, etc., shall be formed with a 1/2 in. chamfer,
- unless otherwise noted on Architectural Drawings. 17. Curing compounds used on concrete that is to receive a resilient tile finish shall be approved
- by the tile manufacturer before use. 18. Place and protect concrete in compliance with ACI 305 and 306, respectively, during hot and

DIVISION 03 - Section 03 21 00 REINFORCING STEEL

- 1. All reinforcing steel shall be detailed and placed in conformance with the 'Building Code Requirements for Reinforced Concrete' (ACI 318 latest approved edition), and the 'Manual of Standard Practice for Reinforced Concrete Construction' (latest edition) by the C.R.S.I. and the W.C.R.S.I., as modified by the project Drawings and Specifications.
- 2. Deformed reinforcing bars shall be ASTM A-615 Grade 60 except ties, stirrups, slab dowels and reinforcing bars in non structural concrete such as slabs on grade, which may be Grade 40, unless noted otherwise. Use A706 reinforcing bars that are required for welding.
- 3. Welding of reinforcing shall be with low hydrogen electrodes in conformance with 'Recommended Practices for Welding Reinforcing Steel, etc.', American Welding Society, AWS-D1.4. See Specifications. 4. All reinforcing bar bends shall be made cold.
- 5. Welded wire fabric shall conform to ASTM A-185. 6. Minimum lap of welded wire fabric shall be 6 inches or one full mesh and one half, which
- ever is greater. . Reinforcing splices shall be made only where indicated on the drawings. 8. Dowels between footings and walls or columns shall be the same grade, size and spacing or number as the vertical reinforcing, respectively.
- 9. All bars shall be marked so their identification can be made when the final in-place inspection is made. 10. Splice all reinforcing bars 2'-0" minimum.

11. All reinforcing bars to be tied in place before pouring concrete or grout.

<u>DIVISION 05 - Section 05 12 00 STRUCTURAL STEEL FRAMING</u>

4

12. Do not splice reinforcing steel in middle third of walls.

- 1. Structural steel shall be detailed, fabricated and erected in accordance with the AISC Specifications for the design, fabrication and erection of Structural steel for buildings (latest
- edition and supplements). 2. All Structural steel shall conform to ASTM A-992 with fy=50 ksi, unless noted otherwise. Misc.
- steel such as Plates, and Angles may be ASTM—A36. 3. Pipe columns shall conform to ASTM designation A-53 Grade 'B'. All steel tubes shall conform to ASTM A-500 Grade 'B' cold formed tubes with fy = 46 ksi. unless noted otherwise on
- 4. All bolts, except anchor bolts, shall conform to ASTM A-325, connection type N, Anchor bolts shall conform to ASTM A-307 A36 or F1554. grade 36 unless noted otherwise. All bolts shall
- have a minimum of 3 threads projecting beyond the nut. 5. Structural steel fabricator shall furnish shop drawings of all Structural steel, respectively, for Architect's and Engineer's review before fabrication.
- 6. Bolt holes in steel shall be 1/16 inch larger than nominal size of bolt used, except anchor bolt holes for column base plates which may be 3/16 inch larger. 7. All Structural steel surfaces shall be shop painted. All steel exposed to weather shall have two
- coats of paint. All exposed Structural steel shall satisfy AISC requirements for Architecturally exposed Structural steel (AESS) unless waived in writing by Architect. 8. All welds shall be in conformity with the Structural welding code (AWS D1.1) of the American
- welding society. See I.B.C. 9. Weld lengths called for on plans are the net effective length required. Use E70XX electrodes. 10. Welding tests and inspections, see I.B.C.

DIVISION 05 - Section 05 31 00 STEEL DECKING

- 1. Steel decking fabricator shall furnish shop drawings of all steel decking, respectively, for Architect's and Engineer's review before fabrication.
- 2. All welds shall be in conformity with the Structural welding code (AWS D1.1) of the American welding society. See I.B.C.
- Weld lengths called for on plans are the net effective length required. Use E70XX electrodes. 4. Welding tests and inspections, see I.B.C.
- 5. The steel decking shall be of type and gauge as called for on Drawings. Decking and all accessories shall be formed from steel sheets having a minimum yield strength of 38,000 psi and conforming to ASTM A-653, Grade A. All steel decking with concrete shall be vented type unless noted otherwise, deck shall have standard G60 galvanized finish. Shore all decks with
- only one span. Deck units shall span over three or more spans where possible. 6. Minimum bearing of decking on supports shall be 2 inches. Sheets shall be attached to all supporting steel members by welding as indicated on Drawings and in accordance with Manufacturer's Recommendations. Upon completion of erection, all welds in exposed deck
- areas shall have touch-up. De-slag, clean and prime with a zinc rich primer. 7. See Drawings for details of deck openings. See Architectural, Mechanical, Electrical, etc., for
- sizes and locations of required openings. 8. All deck closures, edge trims and flashing shall be included as part of this work. Accessory items shall be galvanized sheet.

9. Embedment anchors shall be headed anchor studs with fluxed ends, automatically end welded.

ARREVIATIONS

	ADDKLV	<u> </u>	TONS
2L	Double Angle	K	Kip (1,000 lbs)
AB	Anchor Bolt	LAM	Laminated
ADDL AGGR	Additional	LBS LLH	Pounds Long Leg Horizontal
ALT	Aggregate Alternate	LLV	Long Leg Vertical
ANC	Anchor	MFR	Manufacturer
APPROX	Approximate	MATL	Material
ARCH ASS'Y	Architectural	MAX	Maximum
ASS 1 AVG	Assembly Average	MB MECH	Machine Bolt Mechanical
BLDG	Building	MEZZ	Mezzanine
BLKG	Blocking	MIN	Minimum
BM BN	Beam Boundary Nailing	MISC	Miscellaneous
BO	Boundary Nailing Bottom Of	MK MTL	Mark Metal
BOD	Bottom of Deck	MULT	Multiple
BRG	Bearing	NF	Near Face
BTM C/C	Bottom Center to Center	NIC NOM	Not in Contract Nominal
CEN	Center	(N)	New
CG	Center of Gravity	NS	Near Side
CJ CLG	Construction Joint	NTS	Not to Scale
CLG	Ceiling Clear	00	On Center
CMU	Concrete Masonry Units	OD OPNG	Outside Diameter Opening
CN	Continuous Edge Nailing	OPP	Opposite
COL CONC	Column Concrete	ORIG	Original
CONN	Connection	PCF	Pounds Per Cubic Foot
CONST	Construction	PERP PJF	Perpendicular Premolded Joint Filler
CONT	Continuous	PLYWD	Plywood
CONTR CTJ	Contractor Control Joint	PR	Pair
DBA	Deformed Bar Anchor	PREFAB	Prefabricated
DBL	Double	PROJ PSF	Project Pounds Per Square Foot
DF	Douglas Fir	PSI	Pounds Per Square Inch
DIA DIAG	Diameter Diagonal	PT	Post-Tensioned
DIMS	Dimensions	PTN RAD	Partition
DO	Ditto	RC RC	Radius Reinforced Concrete
DTL	Detail	REF	Reference
DWG EA	Drawing Each	REINF	Reinforcement
EF	Each face	REV REQD	Revision Required
EJ	Expansion Joint	SCHED	Schedule
EL	Elevation	SECT	Section
ELECT EN	Electrical Edge Nailing	SF SHT	Square Feet Sheet
ENGR	Engineer	SIM	Similar
EQ	Equal	SOG	Slab On Grade
EQUIP EW	Equipment	SPECS	Specifications
EXCAV	Each way Excavate	SQ STD	Square Standard
(E)	Existing	STFNR	Stiffner
EXP	Expansion	STGRD	Staggered
EXT FAB	Exterior Fabrication	STL	Steel
FD	Floor Drain	STRUCT SYM	Structural Symmetrical
FDN	Foundation	T & B	Top and Bottom
FF	Finished Floor	T & G	Tongue & Groove
FIG FIN	Figure Finish	THK	Thick
FLR	Floor	THRD THRU	Threaded Through
FN	Field Nailing	TO	Top of
FO FOC	Face of Face of Concrete	TOB	Top of Beam
FOS	Face of Stud	TOC TOF	Top of Concrete Top of Footing (UNO)
FOW	Face of Wall	TOL	Tolerance
FRMG	Framing	TOM	Top of Masonry
FS FT	Far Side Feet	TOS	Top of Steel
FTG	Footing	TOW TS	Top of Wall Structural Tubing
GA	Gage or Gauge	TYP	Typical
GALV	Galvanize	UNO	Unless Noted Otherwise
GB GLB	Grade Beam Glulam Beam	VEDT	Vertical Reinf.
GLB GR	Glulam Beam Grade	VERT VOL	Vertical Volume
GRND	Ground	W/	With
H	Horizontal Reinf.	w/o	Without
HGT HORIZ	Height Horizontal	WD WP	Wood Work Point

Work Point

Welded Wire Fabric

WT

WWF

HSA

INCL

INT

Horizontal

Inches

Interior Joint

Headed Stud Anchor

Include or Included

Inside Diameter

SHEET INDEX

12-SE-0.1GENERAL NOTES 12-SE-0.2TYPICAL DETAILS

12-SE-1.1PARTIAL FLOOR FRAMING PLAN/DETAILS

PARTIAL FLOOR PLAN/DETAILS 12-SE-2.1PARTIAL ROOF FRAMING PLAN 12-SE-3.1

CONSULTANTS:	ARCHITECT/ENGINEERS:	Drawing Title GENERAL NOTES	Project Title Design of Office of Information Project Number 654-11-228	Office
FORBES ENGINEERING 59 Damonte Ranch Pkwy, Suite B181 Reno, Nevada 89521	SIKORA ARCHITECTURE 489 CORVALLIS COURT	Approved: Project Director	& Technology Services Building Number 12 Location 975 KIRMAN AVE. Drawing Number	of Construction and
Ph. (775) 857-3744 Fax (775) 857-3742 © COPYRIGHT 2006 ALL RIGHTS RESERVED, ALL DOCUMENTS HEREIN	RENO, NEVADA 89511 7 7 5 - 8 5 2 - 5 8 0 0 ericesikora-architecture.com		RENO, NV 89502 Date	Facilities
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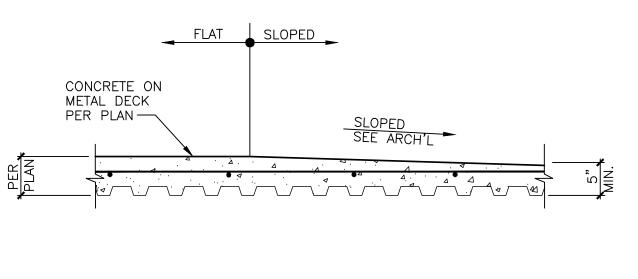
one eighth inch = one foot

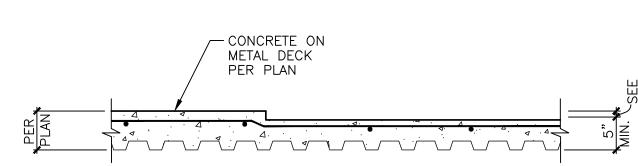
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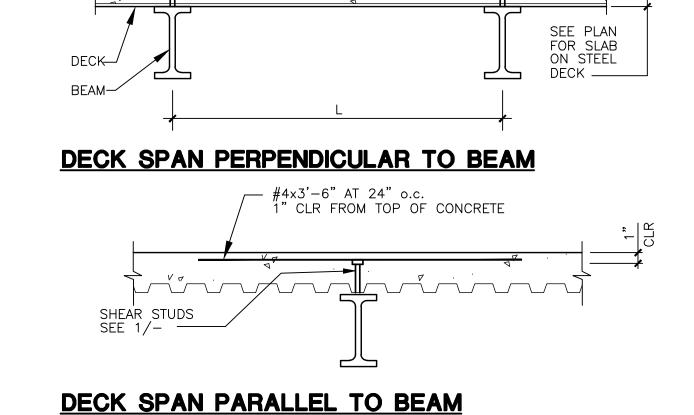
one eighth inch = one foot

0 4 8 16

T SHALL BE THE CONTRACTORS DIRECT RESPONSIBILITY TO COMPLY WITH TYPICAL DETAILS AND GENERAL NOTES AS DELINEATED OR DEFINED ON THE TYPICAL DETAIL DRAWINGS OF THESE CONTRACT DOCUMENTS REGARDLESS OF SPECIFIC FLAGGING OR REFERENCE TO APPLICABLE NOTE OR DETAIL.







#4 AT 24" o.c. 1" CLR FROM TOP OF CONCRETE

TYPICAL —





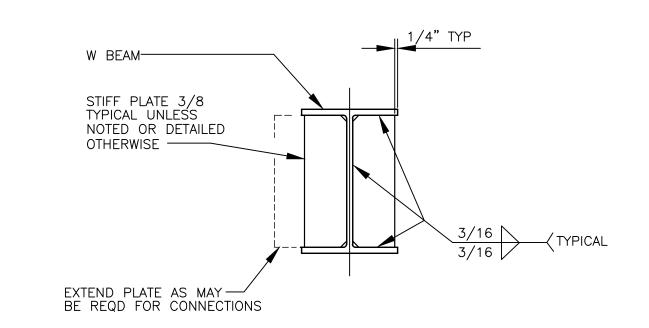
FULL PENETRATION PER MFG RECOMMENDATIONS.

NELSON SHEAR STUDS OR EQUAL AT CENTER-LINE OF BEAM FOR 1 ROW APPLICATION

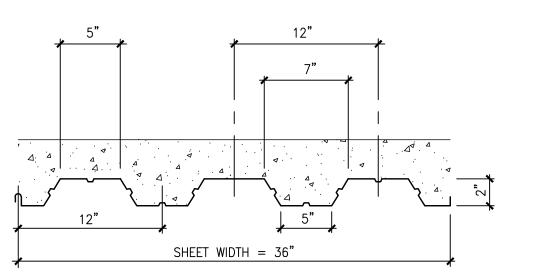
WELD STUDS THRU THE DECK, IN THE FIELD

TOP OF CONCRETE

TOP OF BEAM







2° DECK - SECTION

FORBES ENGINEERING

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Reno, Nevada 89521

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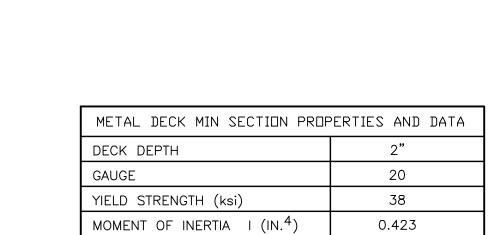
CONSULTANTS:

FLOOR DECK SHORING REQUIREMENTS:

WHERE FLOOR DECK IS NOT CONTINUOUS OVER THREE SPANS, PROVIDE SHORING FOR THE FLOOR DECK WHEN SPANS EXCEED THE FOLLOWING: a. ONE SPAN, 7'-0". b. TWO SPANS, 8'-0".

b. THREE SPANS, 9'-0". MIN. DECK CONN. ALL SUPPORTS:

 $(3)^{1}/_{2}$ "ø puddle welds per sht. $1/_{2}$ "ø at 12" edge WELDS AND PARALLEL SUPPORTS. PUNCHLOK SIDE LAP AT 24" o.c.



0.361

0.370

GALVANIZED

DECK LAYUP SHALL PROVIDE ALL DECK SHEETS OF SUFFICIENT LENGTH TO EXTEND CONTINUOUSLY OVER AT LEAST 3 SPANS. ENDS OF ADJOINING DECK SHEETS SHALL BE CENTERED OVER SUPPORTS AND ABUTTED OR ACCEPTABLY LAPPED 2". ABUTTED SHEETS

SECTION MODULUS S (+) (IN.3)

REQUIRE 2 TYPICAL WELDS AT EACH WELD LOCATION. PUDDLE WELDS INDICATED AS 1/2" SHALL MEET THE WELD REQUIRE—MENTS FOR A FULL EFFECTIVE 1/2" DIAMETER FUSION AREA AT THE FACE OF THE SUPPORT MEMBER, AND THE BURNED OUT PORTION OF THE DECK SHEET SHALL BE FILLED WITH MELTED WELD ROD MATERIAL TO THE THICKNESS OF THE SHEET WITHOUT POROSITY AT THE EDGE OF THE WELD TO THE SHEET.

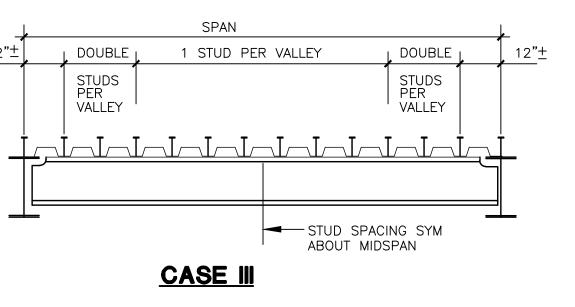
 $S(-)(IN.^3)$

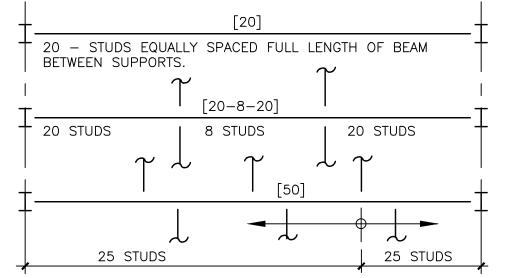
- WHERE SHEAR CONNECTOR STUDS ARE WELDED THRU DECK EACH STUD MAY BE SUBSITUTED FOR A PUDDLE WELD.
- SEE 'WELDED STUDS LAYOUT' FOR ADDTL. DECK/STUD REQMTS. PROVIDE TOUCH UP GALVANIZED PAINT AT ALL FIELD WELDS AND AS REQUIRED FOR FIELD INSTALLATION.

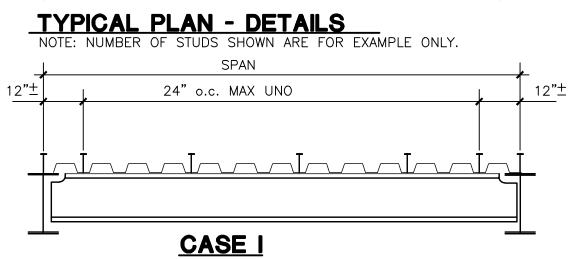
SIKORA

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JOB₁ 11-007







2 WHERE CONCRETE FILL OVER DECK OCCURS OVER STEEL BEAM OR GIRDER,

3 WHERE DECK IS PERPENDICULAR TO THE BEAM, STUDS SHALL BE PLACED IN

THE VALLEYS OF THE DECK, AND SPACED EQUALLY ALONG THE BEAM. (A) WHERE THE NUMBER OF STUDS CALLED FOR ON THE PLANS IS LESS

4 WHERE DECK IS PARALLEL TO THE BEAM OR GIRDER, STUDS SHALL BE

WHERE DECK IS PARALLEL TO THE BEAM OR GIRDER, AND STUDS ARE

MULTI-ROWS IF NECESSARY TO KEEP WITHIN THE EXTENT AS SHOWN.

6 - O INDICATES HALF OF THE REQUIRED STUDS SHALL BE

IF NO SPECIFIC NUMBER OF STUDS ARE CALLED FOR ON PLAN, PLACE STUDS AT 24" o.c., PER CASE I, FOR BOTH PARALLEL AND PERPENDICULAR DECK

THAN THE NUMBER OF VALLEYS IN THE DECK, PLACE THE STUDS

(B) WHERE THE NUMBER OF STUDS CALLED FOR ON THE PLANS EXCEEDS THE NUMBER OF VALLEYS IN THE DECK, PLACE STUDS PER CASE III.

SPACED_EQUALLY ALONG THE MEMBER WITHIN THE EXTENT AS SHOWN ON

CALLED OUT AS SHOWN ON DETAIL (D) HEREIN, STUDS SHALL BE PLACED IN

SHEAR STUD NOTES

DETAIL (C) HEREIN.

7 FOR WELDING SEE DETAIL X. 8 d – INDICATES STUD DIA.

5 6 7

1 ALL SHEAR STUDS SHALL BE 3/4" DIA UNO

PER CASE I OR CASE II.

SPACED EQUALLY ON EACH SIDE. SEE DETAIL (E)

24" o.c. MAX UNO l 1 STUD VALLEY VALLEY CASE II STUD SPACING SYM ABOUT MIDSPAN

1. NUMBER OF STUDS INDICATED THUS [XX] ON PLANS. WHERE

DEFORMED ANCHORS AND SIMILAR NELSON DEVICES.

<u>DETAIL - X</u>

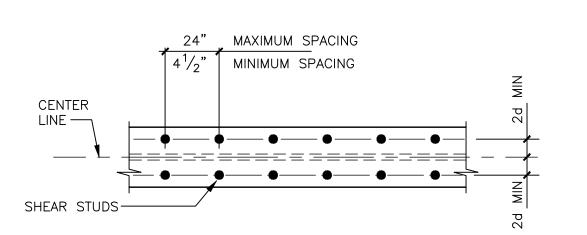
NO INDICATION OCCURS, OR IS INDICĀTED THUS [**] ON PLANS, PROVIDE TYPICAL SIZE STUDS AT 24" o.c. FOR ALL MEMBERS

THE SAME WELDING APPLIES FOR SHEAR STUDS, ANCHOR STUDS,

MANUAL ARC STICK WELDING IS ALLOWED AS LONG AS STUD INSPECTION AND TESTING IS PROVIDED.

24" MAXIMUM SPACING MINIMUM SPACING CENTER LINE-

SINGLE LINE STUD SPACING PLAN



MULTIPLE LINE STUD SPACING PLAN

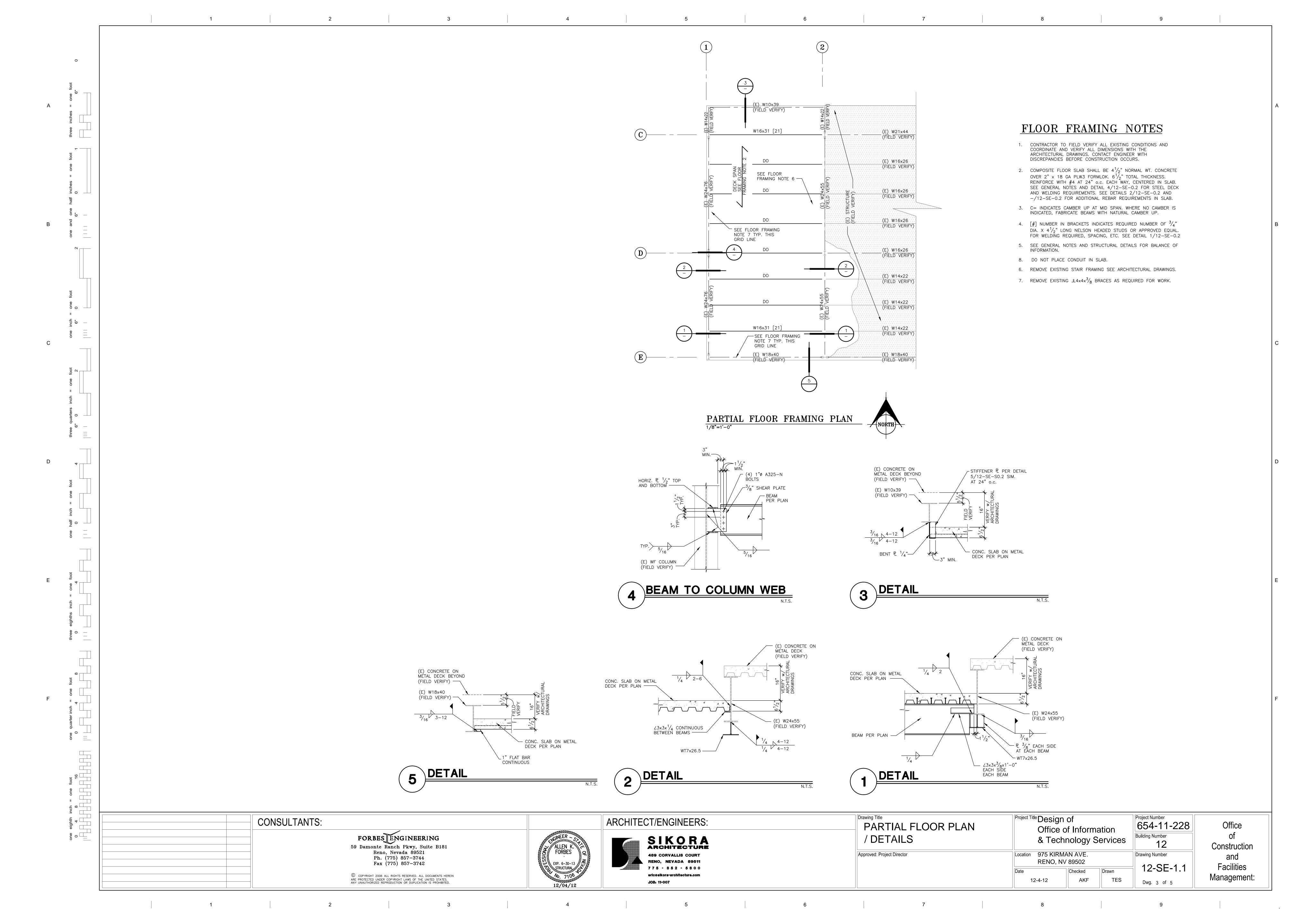
SHEAR STUD NOTES AND DETAILS

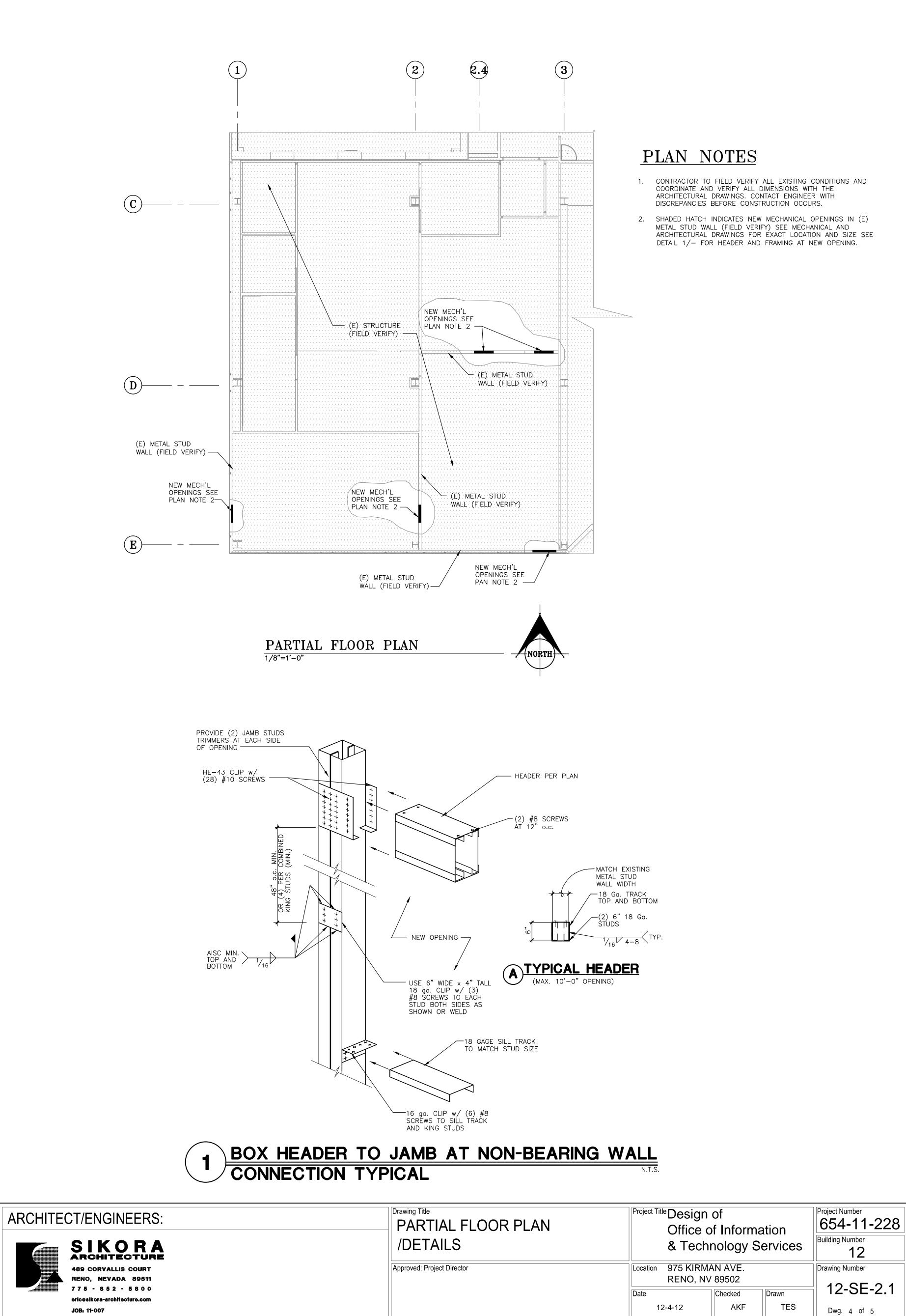
TYPICAL COMPOSITE METAL FLOOR DECKING			
	N.T.S.		

TYPICAL DETAILS	Office	Project Title Design of Office of Information & Technology Services		Building Number 12 Drawing Number and	Office of Construction
Approved: Project Director	RENO, N	RENO, NV 89502			and Facilities
	Date 12-4-12	Checked AKF	Drawn TES	Dwg. 2 of 5	Management:

ARCHITECT/ENGINEERS:

3 4





5 7 8

Office

Construction

and

Facilities

Management:

one eighth inch = one foot

0 4 8 16

CONSULTANTS:

FORBES ENGINEERING

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MINEER - ALLEN K. FORBES

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